

Amendments to the Specification

Please replace paragraphs [0001] on Page 1 of the specification as originally filed with the replacement paragraph set out below.

[0031] The present invention claims priority under 35 U.S.C. § 119(e) of U.S. Provisional Application Serial No. 60/437,071, filed December 30, 2002, and entitled “Improved Catalysts for the Conversion of Methane to Synthesis Gas”. This application is related to commonly assigned, co-pending U.S. Utility Application Serial No. 60/437,124 entitled “Use of Nonmicroporous Support for Syngas Catalyst”, which is hereby incorporated herein by reference[[""]].

Please replace paragraphs [0027] on Page 8 of the specification as originally filed with the replacement paragraph set out below.

[0027] Referring now to Figure 3, another embodiment of a catalyst particle 210 has a trilobe configuration with a core 220 and an outer layer 230 comprising most of the catalytic material. As in the particle of Figure 1, the blocked-micropore layer ~~extends~~ extends through substantially the entire core 220 of the particle 210, such that the catalytic material does not substantially penetrate into the core 220 of the particle 210 during the preparation of the catalyst.

Please replace paragraphs [0032] on Page 10 of the specification as originally filed with the replacement paragraph set out below.

[0032] The preferred catalytic metals are Group VIII, noble metals and/or mixtures thereof, or rhenium, more preferably iridium, rhenium, or rhodium, still more preferably rhodium. In addition, the catalyst composition may contain promoters or other secondary metals. Suitable promoters or other secondary metals are well known in the art and are not critical to the invention. Without being limited to any particular promoter or secondary metal, some suitable

ones include lanthanides, Group VIII metals and/or any mixtures thereof. The support material may comprise any well known in the art, such as refractory support materials like alumina, titania, zirconia, and the like, preferably alumina. The term porous support material as used herein is meant to include all supports that have a preferred initial surface area of at least $2 \text{ m}^2/\text{g}$ and preferably at least $5 \text{ m}^2/\text{g}$. The support structures may be monoliths, particulates or any other shape or form that can be prepared from the compositions of the present invention. Often, the shape or form selected will dictate the type of catalyst bed that must be used. For example, fixed beds are comprised of monoliths and large particle sized supports (greater than 0.5 mm, preferably greater than about 1 mm). Small-size support particles (less than 0.5 mm, preferably less than 0.25 mm) tend to be more useful in fluidized beds. The more preferred embodiments of the present invention comprise fixed bed reactors having large to medium sized particulate type supports.